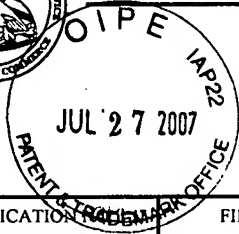




UNITED STATES PATENT AND TRADEMARK OFFICE



Tju

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/760,264

01/21/2004

Kia Silverbrook

RRA11US

1034

24011 7590 07/18/2007
SILVERBROOK RESEARCH PTY LTD
393 DARLING STREET
BALMAIN, 2041
AUSTRALIA

EXAMINER

FIDLER, SHELBY LEE

ART UNIT

PAPER NUMBER

2861

MAIL DATE

DELIVERY MODE

07/18/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/760,264	Applicant(s) SILVERBROOK, KIA	
	Examiner Shelby Fidler	Art Unit 2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/27/2007 has been entered.

Claim Objections

Claim 2 is objected to because of the following informalities: please change "extend" (line 5 of the claim) to "extent" to place the claim in proper sentence format. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over McElfresh et al. (US 6557976 B2).

Regarding claim 1:

McElfresh et al. disclose a printer cartridge (inkjet cartridge; col. 3, lines 45-47) for an inkjet printer (printing system 10) for printing onto a sheet of media (print medium 19) fed through a printer in a media feed direction (the direction through the page in Fig. 1), the printer cartridge comprising:

printing fluid storage (reservoir 15);

a pagewidth printhead (printhead assembly 12; col. 4, lines 34-35) in fluid communication with the printing fluid storage (col. 3, lines 34-35), the pagewidth printhead having an elongate array of nozzles (Figs. 1 and 2) such that in use the elongate array extends transverse to the media feed direction (Fig. 1); and

a first electrical connector (electrical contacts 68; Fig. 5) in electrical communication with said printhead (col. 5, lines 43-47) for mating with a first corresponding connector of the inkjet printer (col. 5, lines 56-57).

McElfresh et al. do not expressly disclose that the first electrical connector is disposed adjacent a first end of the elongate array of nozzles, wherein during use, the first electrical connector engages the first corresponding connector with a contact force that is parallel to the longitudinal extent of the elongate array of nozzles such that a longitudinally compressive force acts on the printer cartridge when it is installed in the printer.

However, at the time of invention, it would have been obvious to a person of ordinary skill in the art to dispose the first electrical connector adjacent a first end of the elongate array of nozzles, such that the first electrical connector engages the first corresponding connector with a contact force that is parallel to the longitudinal extent of the elongate array of nozzles such that a longitudinally compressive force acts on the printer cartridge when it is installed in the

Art Unit: 2861

printer. This would have been an obvious modification since it has been held that rearranging parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ 70.

Regarding claim 4:

McElfresh et al. disclose a printer cartridge (inkjet cartridge; col. 3, lines 45-47) for an inkjet printer (printing system 10) for printing onto a sheet of media (print medium 19) fed through the printer in a media feed direction (the direction through the page in Fig. 1), the printer cartridge comprising:

an elongated body (Fig. 2) including printing fluid storage (col. 3, lines 45-47) and adapted to be received within the inkjet printer (col. 5, lines 60-61) such that in use the elongate body extends transverse to the media feed direction (col. 4, lines 46-52 and Fig. 1);

a pagewidth printhead (printhead assembly 12) attached to the body (Fig. 2) and in fluid communication with the printing fluid storage (col. 3, line 35); and

first and second electrical connectors (electrical contacts 68 and 68') in electrical communication with the printhead (col. 5, lines 43-47 and col. 6, line 66 - col. 7, line 3), the first and second connectors attached to the elongate body (Fig. 5) for mating with corresponding first and second electrical connectors of the inkjet printer (col. 5, lines 43-47 and col. 6, line 66 - col. 7, line 3).

McElfresh et al. do not expressly disclose that the first and second electrical connectors are disposed adjacent opposite ends of the pagewidth printhead such that the first and second electrical connectors engage the corresponding first and second electrical connectors of the inkjet printer with a contact force that is parallel to the longitudinal extent of the elongate body such that a longitudinally compressive force acts on the printer cartridge when it is installed in the printer.

However, at the time of invention, it would have been obvious to a person of ordinary skill in the art to dispose the first and second electrical connectors adjacent opposite ends of the pagewidth printhead, such that the first and second electrical connectors engage the corresponding first and second electrical connectors with a contact force that is parallel to the longitudinal extent of the elongate array of nozzles such that a longitudinally compressive force acts on the printer cartridge when it is installed in the printer. This would have been an obvious modification since it has been held that rearranging parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ 70.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over McElfresh et al. (US 6557976 B2) in view of Brugue et al. (US 6869166 B2).

Regarding claim 1:

McElfresh et al. disclose a printer cartridge (inkjet cartridge; col. 3, lines 45-47) for an inkjet printer (printing system 10) for printing onto a sheet of media (print medium 19) fed through a printer in a media feed direction (the direction through the page in Fig. 1), the printer cartridge comprising:

- printing fluid storage (reservoir 15);

- a pagewidth printhead (printhead assembly 12; col. 4, lines 34-35) in fluid communication with the printing fluid storage (col. 3, lines 34-35), the pagewidth printhead having an elongate array of nozzles (Figs. 1 and 2) such that in use the elongate array extends transverse to the media feed direction (Fig. 1); and

a first electrical connector (electrical contacts 68; Fig. 5) in electrical communication with said printhead (col. 5, lines 43-47) for mating with a first corresponding connector of the inkjet printer (col. 5, lines 56-57).

McElfresh et al. do not expressly disclose that the first electrical connector is disposed adjacent a first end of the elongate array of nozzles, wherein during use, the first electrical connector engages the first corresponding connector with a contact force that is parallel to the longitudinal extent of the elongate array of nozzles such that a longitudinally compressive force acts on the printer cartridge when it is installed in the printer.

However, Brugue et al. disclose a pagewidth printer cartridge (pen 200) comprising electrical connectors (electrical interconnects 310), and that the electrical connectors may be located at various locations on a printhead assembly (col. 4, lines 25-29).

Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the electrical connector location of McElfresh as suggested by Brugue et al., such that the electrical connectors are disposed adjacent the ends of the elongate array of nozzles. In this configuration, the electrical connectors engage corresponding connectors with contact forces that are parallel to the longitudinal extent of the elongate array of nozzles such that a longitudinally compressive force acts on the printer cartridge when it is installed in the printer. The motivation for doing so, as taught by Brugue et al., is to provide electrical connection between a printhead assembly and an electronic controller (col. 4, lines 15-29).

Regarding claim 2:

McElfresh et al. also disclose a second electrical connector (electrical contacts 68') for mating with a second corresponding connector of the inkjet printer (col. 6, line 66 – col. 7, line 3).

McElfresh et al. do not expressly disclose that the second electrical connector is disposed adjacent a second end of the elongate array of nozzles of the pagewidth printhead such that, during use, the second electrical connector engages the second corresponding connector with a contact force that is parallel to the longitudinal extent of the elongate array of nozzles.

However, Brugue et al. disclose a pagewidth printer cartridge (pen 200) comprising electrical connectors (electrical interconnects 310), and that the electrical connectors may be located at various locations on a printhead assembly (col. 4, lines 25-29).

Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the electrical connector location of McElfresh as suggested by Brugue et al., such that the electrical connectors are disposed adjacent the ends of the elongate array of nozzles. In this configuration, the electrical connectors engage corresponding connectors with contact forces that are parallel to the longitudinal extent of the elongate array of nozzles such that a longitudinally compressive force acts on the printer cartridge when it is installed in the printer. The motivation for doing so, as taught by Brugue et al., is to provide electrical connection between a printhead assembly and an electronic controller (col. 4, lines 15-29).

Regarding claim 3:

McElfresh et al. also disclose that the printing fluid storage (15), pagewidth printhead (12) and first and second electrical connectors (68 and 68') are attached to a body of the printer cartridge (col. 3, lines 45-47 and Figs. 2 and 5).

Regarding claim 4:

McElfresh et al. disclose a printer cartridge (inkjet cartridge; col. 3, lines 45-47) for an inkjet printer (printing system 10) for printing onto a sheet of media (print medium 19) fed

through the printer in a media feed direction (the direction through the page in Fig. 1), the printer cartridge comprising:

an elongated body (Fig. 2) including printing fluid storage (col. 3, lines 45-47) and adapted to be received within the inkjet printer (col. 5, lines 60-61) such that in use the elongate body extends transverse to the media feed direction (col. 4, lines 46-52 and Fig. 1);

a pagewidth printhead (printhead assembly 12) attached to the body (Fig. 2) and in fluid communication with the printing fluid storage (col. 3, line 35); and

first and second electrical connectors (electrical contacts 68 and 68') in electrical communication with the printhead (col. 5, lines 43-47 and col. 6, line 66 – col. 7, line 3), the first and second connectors attached to the elongate body (Fig. 5) for mating with corresponding first and second electrical connectors of the inkjet printer (col. 5, lines 43-47 and col. 6, line 66 – col. 7, line 3).

McElfresh et al. do not expressly disclose that the first and second electrical connectors are disposed adjacent opposite ends of the pagewidth printhead such that the first and second electrical connectors engage the corresponding first and second electrical connectors of the inkjet printer with a contact force that is parallel to the longitudinal extent of the elongate body such that a longitudinally compressive force acts on the printer cartridge when it is installed in the printer.

However, Brugue et al. disclose a pagewidth printer cartridge (pen 200) comprising electrical connectors (electrical interconnects 310), and that the electrical connectors may be located at various locations on a printhead assembly (col. 4, lines 25-29).

Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the electrical connector location of McElfresh as suggested by Brugue

Art Unit: 2861

et al., such that the electrical connectors are disposed adjacent the ends of the elongate array of nozzles. In this configuration, the electrical connectors engage corresponding connectors with contact forces that are parallel to the longitudinal extent of the elongate array of nozzles such that a longitudinally compressive force acts on the printer cartridge when it is installed in the printer. The motivation for doing so, as taught by Brugue et al., is to provide electrical connection between a printhead assembly and an electronic controller (col. 4, lines 15-29).

Response to Arguments

Applicant's arguments with respect to claims 1 and 4 have been considered but are moot in view of the new ground(s) of rejection. Please see the above obviousness-type rejection based on the disclosures provided by McElfresh et al. and Brugue et al. This combination teaches a printer cartridge comprising electrical connectors that are aligned with the longitudinal extent of the cartridge so that the contact force between these electrical connections puts a longitudinally compressive force on the cartridge when it is installed in the printer.

Art Unit: 2861

Communication with the USPTO

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shelby Fidler whose telephone number is (571) 272-8455. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Luu can be reached on (571) 272-7663. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Shelby Z. Fidler 7/13/2007

Shelby Fidler
Patent Examiner
AU 2861



MATTHEW LUU
SUPERVISORY PATENT EXAMINER

Notice of References Cited	Application/Control No. 10/760,264	Applicant(s)/Patent Under Reexamination SILVERBROOK, KIA	
	Examiner Shelby Fidler	Art Unit 2861	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-6,869,166 B2	03-2005	Brugue et al.	347/42
	B	US-			
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

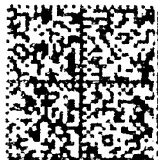
*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Organization Jefferson Bldg/Room Jeff
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
If Undeliverable Return in Ten Days

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300

AN EQUAL OPPORTUNITY EMPLOYER



UNITED STATES POSTAGE
02114
\$01.14
3304235065 JUL 28 2007
MAILED FROM ZIP CODE 22314

Returned for additional postage
Total Rate Required 1.56

AIR MAIL

short paid 41.56 360